Use Attainability Analysis

for

WBID 0401 Sni-a-Bar Creek

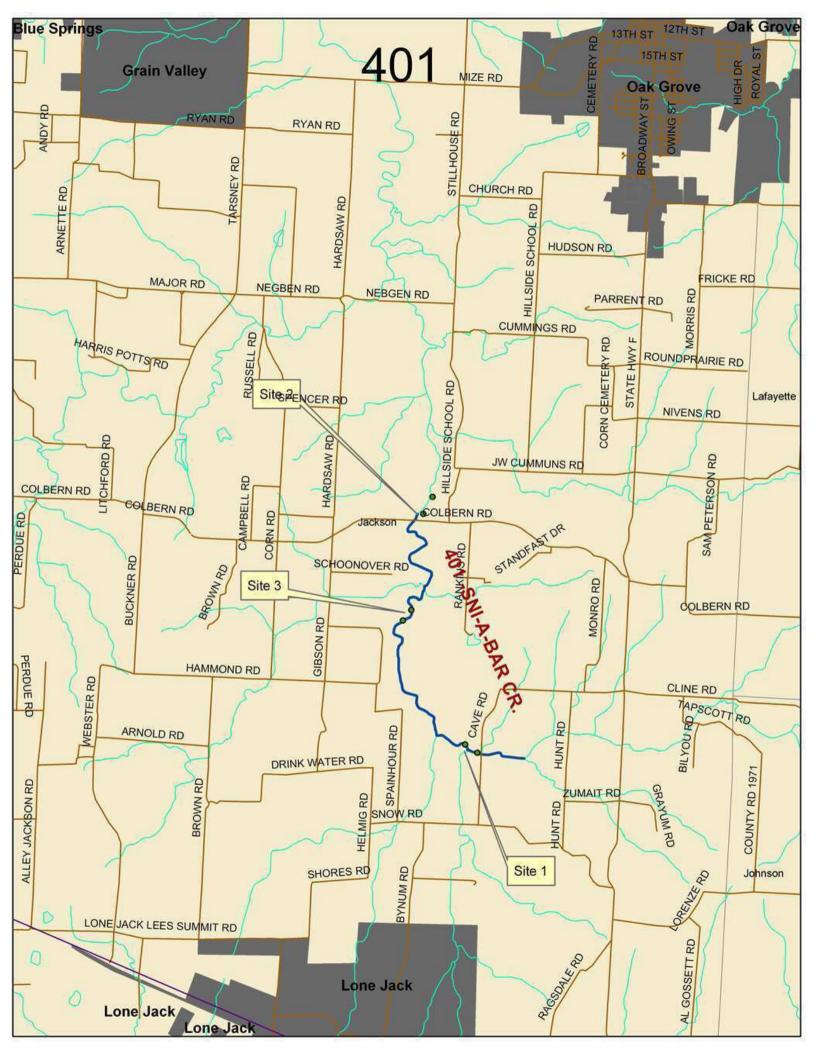
Submitted by SES Inc.

to Missouri Department of Natural Resources Water Protection Program

Date received: November 14, 2007

Data Sheet A - Water Body Identification

I. Water E	Body Inforr	nation	(For water bo	ody being	surveyed	l)	
Water Boo	dy Name (fi	om USGS 7	7.5' quad):	Sni	-A-Bar C	reek	
Missouri V	Nater Body	Identificatio	n (WBID) Num	nber:	401		
8 digit HU	IC code:	10300101			County:	Jackson	
Upstream	Legal Des	cription (fron	n Table H):		T47N	R29W	Sec 5
Downstrea	am Legal D	escription (fi	rom Table H):	-	T48N	R29W	Sec 30
Number o	of sites eval	uated:	3				
List all site	e numbers,	listed conse	quently upstre	am to dov	nstream	:	
	1, 2, 3						
		(s): Attach a that may be		ntire segme	ent with a	ssessment	sites clearly labeled.
II. Facility	/ Informati	on (list all pe	ermitted discha	araes to the	e water b	odv seamei	nt)
		Permit Num		<u> </u>			
	Lone Jack MO01235						
	· · · · · · · · · · · · · · · · · · ·		ila la A				
Name of S		lease print le Gilisa Gou		-	Telephon	e Number:	9.13.307.0054
Organizat	ion/Employ	er:	SES, Inc.				
Please ve	-	ou have cor	npleted all se	ections, ch	necked a	ll applicabl	e boxes, and that the form is
Signed:	gilisa go	uld			Date:	11.07.07	



WBID#	401
Site #	1

Data Sheet B-Site Characterization

Date & Time:	10.29.0	7 11:55		Site Location	Site Location Description (e.g. road crossing):				
Personnel:	Gilisa G	Sould and Larissa Bı	rown		Cave Rd.				
Current Weat	her Cond	ditions: clear		Facility Nar	me:	Lone Jack W	WTP		
Weather cond	litions fo	r the past 10 days:0	.55 inches	Permit Nun	nber:	MO0123579			
Drought cond	itions?: N	No drought ☑ ; Pha	se I □ ; Phase	II □ ; Phas	e III □ ; Pł	nase IV □ ; Ur	nknown 🗆		
Site Location									
		(Universal Transver	se Mercator Pi	rojection, In	Meters				
Site 01	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters	
		0399618		4307404				5.4	
Site 11	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters	
		0399441		4307528			•	5.4	
	<u> </u>	0000441		4307320				J. T	
Photos:	•		1	1					
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpose			Photo ID#:	Photo Pur	pose	
159		downstream, T1	160	upstream,	Γ1	161	downstream, T11		
Photo ID#	P	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Pur	pose	
162		upstream, T11							
Photo ID#	P	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Pur	pose	
Uses Observ	ed:								
☐ Swimming]	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	☐ Water Skiing		
☐ Wind surfi	ng	☐ Kayaking	□ Boating	-	□ Wadir	ng	□ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None o	of the above	☐ Other:		
Describe:		<u></u>	<u> — : :e:g</u>						

WBID#	401
Site #	1

Data Sheet B- Site Characterization (Continued)

	2414 011001 2		(00	,		
Surrounding Conditi						
☐ City/County parks	☐ playgrounds	☐ MDC conservation	n lands	☐ Urban areas	☑ Rural	Residential
☐ Campgrounds	☐ State parks	□ National Forests		□ Nature trails	□ Stairs	/walkways
□ Boating accesses	☑ Fence	□ No tresspass sig	n	☐ Steep Slopes	☐ Othe	r:
Comments:						
none						
Evidence of Human U	Use:					
□ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Site	s □ Rope	swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	e	☐ Fishing Tackle		ock watering
comments/other:	1 — р9	1 = 1 2 = 2	<u> </u>		- 1	.com matering
none						
Substrate:						
% Cobble	% Gravel	% Sand	% Silt	% Mu	d/Clay	% Bedrock
	60	30	10			
A mustic Manatation.						
Aquatic Vegatation:						
none						
none						
Water Characteristic	s:					
Odor:	☐ Sewage	☐ Musky	☐ Chem	ical 🔽	1 None	☐ Other:
Color:	☑ Clear		☐ Gray		Milky	☐ Other:
Bottom Deposit:	□ Sludge				1 None	☐ Other:
Surface Deposit:	□ Oil	☐ Scum	□ Foam	v	None	☐ Other:

WBID#	401
Site #	1

Data Sheet B - Site Characterization (continued)

	lorphology: (Record isolate					
Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)	
	access location (m)					
	<u> </u>					
Comments: (Please re	cord any additional comments	here.)				
(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	sera any additional comments					
none						
Discussion of the transfer of the control of the co						
	Please verify that you have completed all sections, checked all applicable boxes, and that the form is					
complete.						

Position: field team leader

Surveyor's Signature: _____ gilisa gould _____ Date of Survey: _____ 10.29.07

Organization: SES, Inc.

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																		Disso	lved Ox	xygen		
	Waterbo	ody ID:	401		Ī	Site #:	1									Date:	10.29.07	7		Time:	11:55	
	Estimate	ed Chanr	nel Incisi	on:	2.0	(m) (hei	ght betw	een low b	ank widt	th and wa	iter)					Di	issolved	Oxygen:		10.0	(mg/L)	
		cation - l		UTM X) 0399618		orthing (UTM Y), Horizontal Accuracy Estimate (EPE / PDOP / FOM)												'			•	
		UTM X		0399441		·	UTM Y:		4307528	3		+/-	5.4	(meters) (meters)		וט		Oxygen:			(% sat)	
		e Stream			6			(meters)	L	ength of	Survey S	Segment:		150	(meters)			ic Cond:				
	(To dete	ermne Le	ngth of I	Reach)					(2	0x avera	ge strear	n width)				Wa	iter Temp	perature:		9.1	(°C)	
	Fiel	ld Staff:			Gilisa G	ould and	l Larissa	Brown														
										Tra	nsect C	ross-Se	ction									
	0)1	0	2	0	3	()4	0	15	0	6	(07	08	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.3	0.05	0.7	0.01	0.7	0.05	0.5	0.05	0.6	0.15	0.6	0.05	0.5	0.01	0.5	0.05	0.4	0.05	0.4	0.01	0.5	0.00
2	0.6	0.15	1.4	0.01	1.4	0.25	1.0	0.20	1.2	0.25	1.2	0.25	1.0	0.10	1.0	0.25	0.8	0.10	0.8	0.05	1.0	0.00
3	0.9	0.15	2.1	0.05	2.1	0.35	1.5	0.25	1.8	0.45	1.8	0.35	1.5	0.15	1.5	0.40	1.2	0.25	1.2	0.10	1.5	0.00
4	1.2										2.4				2.0				1.6			0.00
5	1.5		3.5 4.2		3.5 4.2			0.25			3.0				3.0				2.0		2.5 3.0	0.00
7	2.1	0.10	4.2		4.2			0.13						0.63				0.45	2.4		3.5	0.00
8	2.4	0.05	5.6		5.6													0.25	3.2	0.01	4.0	0.00
9	2.7	0.01	6.3	0.01	6.3	0.05	4.5	0.01	5.4	0.05	5.4	0.01	4.5	0.70	4.5	0.01	3.6	0.15	3.6	0.01	4.5	0.00
ight Bank	3.0	0.00	7.0	0.00	7.0	0.00	5.0	0.00	6.0	0.00	6.0	0.00	5.0	0.00	5.0	0.00	4.0	0.00	4.0	0.01	5.0	0.00
eature Type	рс	ool	рс	ool	рс	ool	pe	ool	рс	ool	рс	ool	р	ool	ро	ol	рс	ool	ро	ool	ро	ol

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 11.07.07	
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WBID#	401
Site #	2

Data Sheet B-Site Characterization

Date & Time:	10.29.0	7 1:10		Site Location	Site Location Description (e.g. road crossing):				
Personnel:	Gilisa G	Sould and Larissa B	rown		Colbern Rd.				
Current Weat	her Cond	ditions: clear		Facility Nar	me:	Lone Jack W	WTP		
Weather cond	litions fo	r the past 10 days:0	.55 inches	Permit Nun	nber:	MO0123579			
Drought cond	itions?: N	No drought ☑ ; Pha	se I □ ; Phase	II □ ; Phas	e III □ ; Pł	nase IV □ ; Ur	nknown 🗆		
-		-							
Site Location									
		(Universal Transver	se Mercator Pi	rojection, In	Meters				
Site 01	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters	
		0398826		4310908				3.6	
Site 11	Easting	(UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters	
		0398961	Ŭ,	4311155			•	6.0	
		0390901		4311100				0.0	
Photos:							-		
Photo ID#	F	Photo Purpose	Photo ID#: Photo Purpos			Photo ID#:	Photo Purpo	ose	
165		downstream, T1	166	upstream,	Γ1	167	downstream, T11		
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpo	ose	
168		upstream, T11							
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpo	ose	
Uses Observ	ed:								
☐ Swimming]	☐ Skin diving	☐ SCUBA di	iving	☐ Tubing	g	☐ Water Skiing		
☐ Wind surfi	ng	☐ Kayaking	□ Boating	-	□ Wadir	ng	☐ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:		
Describe:		<u></u>	<u> — : :e:g</u>						

WBID#	401
Site #	2

Data Sheet B- Site Characterization (Continued)

Surrounding Condition	ons:					
☐ City/County parks	☐ playgrounds	☐ MDC conservation	on lands	☐ Urban areas	☑ Rural	Residential
☐ Campgrounds	☐ State parks	□ National Forests		☐ Nature trails	☐ Stairs	/walkways
☐ Boating accesses	☑ Fence	□ No tresspass sig	n	☐ Steep Slopes	☐ Other	r:
Comments:						
none						
Evidence of Human l	Jse:					
☐ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope	swings
☐ RV/ATV Tracks	☐ Fire pit/ring	□ NPDES Discharg	е	☐ Fishing Tackle	☐ Livest	ock watering
comments/other:						
none						
Substrate:						
Substrate: % Cobble	% Gravel	% Sand	% Silt	% Mud	/Clay	% Bedrock
	% Gravel 40	% Sand 30	% Silt	% Mud/ 30	-	% Bedrock
% Cobble			% Silt		-	% Bedrock
			% Silt		-	% Bedrock
% Cobble Aquatic Vegatation:			% Silt		-	% Bedrock
% Cobble			% Silt		-	% Bedrock
% Cobble Aquatic Vegatation:			% Silt		-	% Bedrock
% Cobble Aquatic Vegatation:			% Silt		-	% Bedrock
% Cobble Aquatic Vegatation:	40		% Silt		-	% Bedrock
% Cobble Aquatic Vegatation: none	40		% Silt	30	-	% Bedrock
% Cobble Aquatic Vegatation: none Water Characteristic: Odor: Color:	s: □ Sewage □ Clear	30 ☐ Musky ☐ Green	□ Chem	ical ☑	None Milky	□ Other:
% Cobble Aquatic Vegatation: none Water Characteristic: Odor:	40 s: □ Sewage	30	□ Chem	ical ☑ ediments ☑	None	□ Other:

WBID#	401
Site #	2

Data Sheet B - Site Characterization (continued)

Additional Stream Morphology	: (Record isolated pools or other fe	eatures identified during the survey that	at may support recreational uses)
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Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
o	l tree to the	,			
omments: (Please re	ecord any additional comments h	ere.)			
	none				
laaa varify that v	ou bour commisted all ou	antiana ahaaka	ماطعماناه ما	havaa and that tha f	iawa la
iease verny that yo omplete.	ou have completed all se	etions, checke	d all applicable	boxes, and that the i	orm is
ompiete.					
urveyor's Signature:	gilisa gould		Date of Survey:	10.29.07	
. •			_		
	SES, Inc.			field team leader	

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																		Disso	lved Ox	ygen		
																Date:	10.29.07	7		Time:	1:10	
	Estimate	ed Chann	nel Incisi	on:	3.0	(m) (hei	ght betw	een low b	ank wid	th and wa	iter)					Di	ssolved	Oxygen:		8.5	(mg/L)	
	01	UTM X	<u>: </u>	0398826	5		UTM Y:	izontal Ac	431090	8	•	DOP / FO +/- +/-		(meters)	•	Di	ssolved	Oxygen:			(% sat)	
		UTM X		0398961		•								(meters)			Specifi	ic Cond:			(µS/cm)	
			Width: ength of I	Reach)			8	(meters)		ength of 20x avera	-	_		160	(meters)	Wa	ter Temp	perature:		13.5	(°C)	
	Fiel	d Staff:			Gilisa G	ould and	l Larissa	Brown						-								
										Tra	nsect C	ross-Se	ction									
	0	1	0	2)3		04)5		6	(07	0	8		9	10	0	11	l
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.8	0.40	0.8	0.30	0.7	0.35	0.9	0.15	1.2	0.30	0.7	0.05	0.8	0.05	1.0	0.10	1.2	0.05	1.0	0.60	0.6	0.01
2	1.6	0.60	1.6	0.55	1.4	0.55	1.8	0.35	2.4	0.75	1.4	0.10	1.6	0.10	2.0	0.25	2.4	0.25	2.0	0.90	1.2	0.05
3	2.4	0.85	2.4	0.75	2.1	0.55	2.7	0.40	3.6	0.90	2.1	0.15	2.4	0.25	3.0	0.50	3.6	0.40	3.0	0.80	1.8	0.10
4	3.2	0.85	3.2	0.85	2.8	0.55	3.6	0.40	4.8	1.00	2.8	0.10	3.2	0.30	4.0	0.55	4.8	0.30	4.0	0.70	2.4	0.10
5	4.0	0.70	4.0	0.60	3.5	0.50	4.5	0.50	6.0	1.00	3.5	0.10	4.0	0.30	5.0	0.55	6.0	0.25	5.0	0.65	3.0	0.01
6	4.8	0.55	4.8	0.50	4.2	0.40	5.4	0.50	7.2	1.00	4.2	0.20	4.8	0.30	6.0	0.55	7.2	0.15	6.0	0.60	3.6	0.00
7	5.6	0.40	5.6	0.45	4.9	0.30	6.3	0.40	8.4	1.00	4.9	0.20	5.6	0.25	7.0	0.55	8.4	0.15	7.0	0.50	4.2	0.05
8	6.4	0.20	6.4	0.30	5.6	0.20	7.2	0.30	9.6	0.50	5.6	0.05	6.4	0.20	8.0	0.40	9.6	0.10	8.0	0.30	4.8	0.01
9	7.2	0.15	7.2	0.05	6.3	0.10	8.1	0.15	10.8	0.20	6.3	0.05	7.2	0.10	9.0	0.15	10.8	0.05	9.0	0.05	5.4	0.01
aight Bank	8.0	0.00	8.0	0.00	7.0	0.00	9.0	0.00	12.0	0.00	7.0	0.00	8.0	0.00	10.0	0.00	12.0	0.00	10.0	0.00	6.0	0.00
eature Type		1		1		1		1		1		1		1		-1		1		-1	00	٦.
iffle, run, or pool	po	ool	pc	ool	pc	ool	p	ool	po	ool	po	ool	р	ool	po	OI.	pc	ool	po	OI	riff	ıe

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 11.07.07	
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WBID#	401
Site #	3

Data Sheet B-Site Characterization

Date & Time:	7 14:20		Site Location Description (e.g. road crossing):					
Personnel:	Gilisa G	Sould and Larissa B	rown		midway S	ites 1 and 2		
Current Weat	ner Cond	ditions: clear		Facility Na	me:	Lone Jack W	WTP	
Weather cond	litions fo	r the past 10 days:0	.55 inches	Permit Nun	nber:	MO0123579		
Drought conditions?: No drought ☑ ; Phase I □ ; Phase II □ ; Phase III □ ; Phase IV □ ; Unknown □								
Site Location	ı•							
		(Universal Transver	se Mercator P	rojection, In	Meters			
Site 01	Easting	(UTM X):	Northing (UTI	И Y):		Horizontal Ac	curacy: Meters	
		0398529		4309342			4.5	
Site 11	Easting	(UTM X):	Northing (UTI	И Y):		Horizontal Ac	curacy: Meters	
		0398648		4309497			8.5	
	<u>. </u>	00000-0		+505+57			0.5	
Photos:			T	T		T		
Photo ID#	F	Photo Purpose	Photo ID#:	Photo F	Purpose	Photo ID#:	Photo Purpose	
169		downstream, T1	170	upstream,	T1	171	downstream, T11	
Photo ID#	Р	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	
172		upstream, T11						
Photo ID#	Р	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	
Uses Observ	ed:							
☐ Swimming	ı	☐ Skin diving	☐ SCUBA d	iving	☐ Tubing	g	☐ Water Skiing	
☐ Wind surfi	ng	☐ Kayaking	☐ Boating		□ Wadir	ng	☐ Rafting	
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:	
Describe:		777 3	<u> </u>					

WBID#	401
Site #	3

Data Sheet B- Site Characterization (Continued)

Surrounding Conditi	ons:				
☐ City/County parks	☐ playgrounds	☐ MDC conservati	on lands 🔲 Urbai	n areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	☐ National Forests	s □ Natur	e trails	☐ Stairs/walkways
☐ Boating accesses	☑ Fence	☐ No tresspass sig	gn □ Steep	Slopes	☐ Other:
Comments:	•				
none					
Evidence of Human	Use:				
☐ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Camp	ing Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	ge 🛮 Fishin	g Tackle	☐ Livestock watering
comments/other:					
none					
Substrate:					
% Cobble	% Gravel	% Sand	% Silt	% Mud/C	Clay % Bedrock
	30	30	10	30	•
Aquatic Vegatation:					
none					
Water Characteristic	s:				
Odor:	□ Sewage	☐ Musky	☐ Chemical	 ✓ N	lone ☐ Other:
0-1	-	·	ПСтан	[Z] N	filky ☐ Other:
Color:	□ Clear	□Green	☐ Gray	<u>v</u> 10	iliky 🗀 Otilei.
Bottom Deposit: Surface Deposit:	☐ Clear ☐ Sludge ☐ Oil	☐ Solids ☐ Scum	☐ Fine sediments ☐ Foam		lone ☐ Other:

WBID#	401
Site #	3

Data Sheet B - Site Characterization (continued)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recr

	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (III)				
omments: (Please re	cord any additional comments	nere.)			
	none				
lease verify that yo omplete.	ou have completed all s	ections, checke	d all applicable	boxes, and that the f	form is
omplete.	ou have completed all s gilisa gould		ed all applicable _Date of Survey:		orm is
omplete.					orm is

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																Dissolved Oxygen							
			401													Date:	10.29.07	7		Time:	14:20		
		timated Channel Incision: 3.0 (m) (height between low bank width and water)										Di	7.7	(mg/L)									
	01	GPS Location - Easting (UTM X), Northing (UTM Y), Horizontal A 01						4309342 <u>+/-</u> 4.5 (meters				(meters)		Di	ssolved	Oxygen:	(% sat)						
														(meters)		Specifi	ic Cond:	(μS/cm)					
	(To determine Length of Reach)						(meters) Length of Survey Segment: 160 (meters) (20x average stream width)								Water Temperature: 12.2					(°C)			
	Fiel	Field Staff: Gilisa Gould and Larissa Brown																					
		Transect Cross-Section																					
	0	1	0	2	0	3	()4	05		06		07		08	08		09		10		11	
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1	0.7	0.10	0.8	0.30	0.7	0.10	0.9	0.40	1.0	0.20	1.0	0.20	1.0	0.10	0.9	0.20	0.7	0.05	0.8	0.60	0.7	0.20	
2	1.4	0.20	1.6	0.45	1.4	0.30	1.8	0.75	2.0	0.35	2.0	0.55	2.0	0.25	1.8	0.40	1.4	0.40	1.6	0.85	1.4	0.40	
3	2.1	0.30	2.4	0.60	2.1	0.50	2.7	1.00	3.0	0.40	3.0	0.70	3.0	0.45	2.7	0.65	2.1	0.65	2.4	1.00	2.1	0.45	
4	2.8	0.25	3.2	0.90	2.8	0.85	3.6	0.95	4.0	0.60	4.0	0.65	4.0	0.60	3.6	0.70	2.8	0.70	3.2	1.00	2.8	0.60	
5	3.5	0.25	4.0	0.90	3.5	0.90	4.5	1.00	5.0	0.50	5.0	0.40	5.0	0.80	4.5	0.70	3.5	0.65	4.0	1.00	3.5	0.45	
6	4.2	0.30	4.8	0.75	4.2	0.80	5.4	1.00	6.0	0.40	6.0	0.45	6.0	0.10	5.4	0.60	4.2	0.60	4.8	1.00	4.2	0.30	
7	4.9	0.25	5.6	0.50	4.9	0.80	6.3	1.00	7.0	0.35	7.0	0.35	7.0	0.80	6.3	0.70	4.9	0.40	5.6	1.00	4.9	0.30	
8	5.6	0.20	6.4	0.45	5.6	0.70	7.2	0.55	8.0	0.25	8.0	0.35	8.0	0.50	7.2	0.40	5.6	0.30	6.4	0.60	5.6	0.15	
9	6.3	0.10	7.2	0.05	6.3	0.55	8.1	0.30	9.0	0.05	9.0	0.05	9.0	0.25	8.1	0.15	6.3	0.10	7.2	0.20	6.3	0.05	
ight Bank	7.0	0.00	8.0	0.00	7.0	0.00	9.0	0.00	10.0	0.00	10.0	0.00	10.0	0.00	9.0	0.00	7.0	0.00	8.0	0.00	7.0	0.00	
eature Type		1		1		1		,		,				1		1		1		,			
ffle, run, or pool	ool pool pool		lool	pc	ool	pool		pool		po	pool		pool		ol	pool		pool		pool			

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 11.07.07	
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WBID# 0401



Site# 1 Photo ID# 159, Downstream T1



Site# 1 Photo ID# 161, Downstream T11



Site# 1 Photo ID# 160, Upstream T1



Site# 1 Photo ID# 162, Upstream T11

WBID# 0401



Site# 2 Photo ID# 165, Downstream T1



Site# 2 Photo ID# 167, Downstream T11



Site# 2 Photo ID# 166, Upstream T1



Site# 2 Photo ID# 168, Upstream T11

WBID# 0401



Site# 3 Photo ID# 169, Downstream T1



Site# 3 Photo ID# 171, Downstream T11



Site# 3 Photo ID# 170, Upstream T1



Site# 3 Photo ID# 172, Upstream T11